

AMENDMENTS TO THE CLAIMS

U.S. Patent Application Serial No. 09/589,778 was filed with claims 1-12.

Please cancel claims 1-10 without prejudice or disclaimer.

Please add claims 13-29.

- 5 Accordingly, following entry of these amendments claims 11-29 remain pending in the present application.

Please amend the claims as follows:

10 1. Canceled.

2. Canceled.

3. Canceled.

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4. Canceled.

5. Canceled.

20 6. Canceled.

7. Canceled.

8. Canceled.

9. Canceled.

5 10. Canceled.

11. (Original) A computer system for operation in a network, the system comprising a storage system, a network interface, and a processor; the system containing a local copy of a portion of a distributed metadata registry, and an
10 agent for monitoring communications between machines of the computer network and the compute system for communications relevant to a command object of the metadata registry, the agent being configured to modify the command object by adding thereto network address information of machines of the computer network that should participate in a communication affecting the
15 metadata registry to maintain coherency of the metadata registry.

12. (Original) The computer system of Claim 11, wherein the command object further comprises a quality-of-service object comprising a desired capacity, latency, and bandwidth, wherein the computer system comprises an
20 allocator that selects a resource of the storage system according to criteria comprising the desired capacity, latency, and bandwidth of the quality-of-service object and available resource information of the metadata registry.

13. (New) The computer system of claim 11, wherein the metadata registry comprises resource information including capacity and latency information for at least two devices to which the computer system is coupled.
- 5 14. (New) The computer system of claim 11, wherein the command object comprises a quality-of-service object including a desired capacity, latency, and bandwidth.
15. (New) The computer system of claim 14, wherein a resource allocator
10 uses at least one of information in the quality-of-service object and resource information in the metadata registry to select destination information.
16. (New) The computer system of claim 11, wherein the metadata registry comprises network topology information, and the quality-of-service object
15 comprises desired network hop information.
17. (New) The computer system of claim 16, wherein the resource allocator uses the network topology information and the desired network hop information to select a resource.
- 20 18. (New) The computer system of claim 11, wherein the metadata registry comprises network load information.

19. (New) The computer system of claim 18, wherein the resource allocator uses network load information to select a resource.
20. (New) The computer system of claim 11, wherein the metadata registry
5 comprises information about processing resources of the network, and wherein the quality-of-service object comprises desired processing resources.
21. (New) The computer system of claim 20, wherein the allocator uses at
least one of the information about processing resources of the network and the
10 desired processing resources to select a resource.

22. (New) A method of executing a data transaction in a storage network, the storage network including a plurality of storage devices communicatively connected by at least one switching device, comprising:

- receiving, at a first computing device communicatively connected to the storage network, a request to execute a data transaction;
- in response to the request, creating, at the first computing device, a command object in a local copy of a portion of a metadata registry;
- forwarding, via the at least one switching device, the command object to at least one targeted storage device in the storage network;
- at the at least one switching device, modifying the command object to include the destination information of a second computing device communicatively connected to the storage network if the command object requires changes to a local copy of a metadata registry in the second computing device; and
- at the first computing device, invoking a command in the command object to execute the data transaction.

23. (New) The method of claim 22, wherein the command object includes information that assigns a plurality of devices in the storage network to participate in the data transaction, and further comprising forwarding the command object to each of the assigned plurality of devices.

24. (New) The method of claim 23, wherein at least one device that receives the command object transmits an acknowledgment in response to the command object.

5 25. (New) The method of claim 23, further comprising transmitting the command object to one or more computing devices in the storage network that are not assigned to participate in the data transaction.

26. (New) The method of claim 22, wherein the command object comprises
10 at least one direction object including information used in forwarding, via the at least one switching device, the command object to at least one targeted storage device in the storage network.

27. (New) A method of operating a storage network including a plurality of
15 storage devices communicatively connected by at least one switching device, the method comprising:

identifying problem data located on one or more storage devices in the storage network;

invoking a resource allocator to check resource availability information at
20 other locations in the storage network; and

mirroring the problem data from its original location to an alternate location in the storage network if an alternate location has a higher quality of service indicator.

28. (New) The method of claim 27, further comprising deallocating the problem data from its original location.

- 5 29. (New) The method of claim 27, wherein the resource allocator selects a resource of the available storage resources according to criteria comprising the desired capacity, latency, bandwidth, network topology information, and desired network hop information.